



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

# **FHWA Publications Index**

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## **1987**



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**1987**



U.S. Department of Transportation  
**Federal Highway Administration**

1. The first part of the paper discusses the importance of the study of the history of the United States.

2. The second part of the paper discusses the importance of the study of the history of the United States.

3. The third part of the paper discusses the importance of the study of the history of the United States.

# FOREWORD

The Federal Highway Administration (FHWA) is an agency of the United States Department of Transportation. It is concerned with all phases of highway planning, construction, and traffic operations.

The FHWA organization consists of a Headquarters in Washington, DC, nine regions, and 50 State offices. A research center, three Federal construction divisions, and offices in Puerto Rico and the District of Columbia complete the organizational structure.

The FHWA's mission is fourfold:

First, the FHWA administers an annual multi-billion dollar program of financial assistance to the States, which in turn make grants to local governments. Federal funding comes mainly from the tax-supported National Highway Trust Fund as authorized by the United States Congress. Amounting to approximately \$14 billion a year, the fund provides for the construction, rehabilitation and repairs of roads and bridges throughout the Nation.

The goal is to ensure a road system of high standards serving all of the States, with special emphasis on the safety and preservation of the driving public and its property.

Second, the FHWA is responsible for the development and distribution of the latest technology to meet the needs of the federally financed road program.

Third, the FHWA serves as the highway design and construction agent for the

Federal Government, providing services to other agencies, such as the Departments of Defense and Interior, whose missions require the building of a road system.

Fourth, the FHWA regulates and enforces Federal requirements relating to the safety of operation and the equipment of commercial motor carriers engaged in interstate commerce. This includes the movement of dangerous cargoes such as explosives, inflammatory chemicals, and other hazardous materials over the Nation's highways.

To accomplish this mission, the FHWA works closely with State highway agencies, transportation associations, and private consultants throughout America. This partnership has created a network of engineers, scientists, administrators, and other technical personnel with extensive knowledge of building and maintaining viable highway systems.

A wealth of highway information is produced as a result of research and advancements achieved through this partnership. The findings of this research and technological development are published in publications produced by FHWA personnel and contractors.

The Publications Index is a useful guide to this collection of reports, manuals, and summaries. These publications are distributed to State and local highway agencies, highway associations, and other members of the transportation industry. Publications also are available from the FHWA, the U.S. Government Printing Office, and/or the National Technical Information Service.



# INTRODUCTION

## How to Use the Publications Index

### FHWA Publications Index

Two categories of publications are listed in this Index:

- 0 Publications printed in 1987.
- 0 Publications submitted to the National Technical Information Service (NTIS) in 1987. (Note: Some of the NTIS submissions were printed prior to 1987.)

#### Title

Each publication is listed alphabetically by Title, followed by five additional lines of information. Use this information to identify and request a publication.

Start by searching for the title in the same manner you would find an item in a phone directory.

#### Publication No.

The Publication Number follows the title. It is helpful when ordering the publication. (In this edition, the publication

number is blank more often than numbered because the use of this number has not been fully implemented by FHWA offices.)

#### Date Printed

Next is the Date Printed. It indicates the year and month the publication was published.

#### Responsible Office

The next three items are used to identify the specific FHWA office responsible for a publication:

The Routing Symbol is the mailing code for the office.

The Contact is the title of the office.

The publication is Prepared By an FHWA office or a private contractor.

#### Available From

The last line indicates whether the publication is Available From an FHWA office, the U.S. Government Printing Office, or the National Technical Information Service.

Alternative Incandescent Traffic Signal Lamps and Systems for  
Improved Optical & Energy Efficiency: Final Report  
PUBLICATION NO. FHWA-RD-85-089 DT. PRINTED: 85/09  
ROUTING SYMBOL: HSR-10  
CONTACT: Office of Safety & Traffic Operations R&D  
PREPARED BY: Lighting Sciences Inc.  
AVAILABLE FROM: NTIS

### Sample Listing

## Where to Order Publications

Publications are ordered directly from the source indicated in the last line (Available From) of each publication listing. The following telephone numbers and addresses are provided for your convenience.

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<b>FHWA Headquarter Offices</b>	Office of Highway Safety 366-1153
<b>Federal Highway Administration</b> 400 7th St., SW Washington, DC 20590	Office of Traffic Operations 366-0372
<b>Area Code 202</b>	Office of Program Management Support 366-5370
Office of Chief Counsel 366-0740	Office of Motor Carrier Standards 366-1790
Office of Civil Rights 366-0693	Office of Motor Carrier Safety Field Operations 366-2952
Office of Public Affairs 366-0660	<b>Turner-Fairbank Highway Research Center</b>
Office of Program Review 366-9393	<b>Federal Highway Administration</b> Turner-Fairbank Highway Research Center 6300 Georgetown Pike McLean, VA 22101
Office of Environmental Policy 366-2045	<b>Area Code 703</b>
Office of Right-of-Way 366-0342	Office of Operations Staff 285-2104
Office of Policy Development 366-0587	National Highway Institute 285-2770
Office of Highway Information Management 366-0180	Office of Engineering and Highway Operations Research & Development 285-2001
International Highway Programs Office 366-0111	Office of Safety and Traffic Operations Research & Development 285-2021
Office of Highway Operations 366-0341	Office of Implementation 285-2034
Office of Engineering 366-4853	
Office of Planning 366-2951	
Office of Direct Federal Programs 366-9494	

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<b>U.S. Government Printing Office</b>	<b>National Technical Information Service</b>
Superintendent of Documents U.S. Government Printing Office Washington, DC 20402 202-783-3238	5285 Port Royal Road Springfield, Virginia 22161 703-487-4650



Accessibility for Elderly and Handicapped Pedestrians - A Manual for Cities

PUBLICATION NO. FHWA-IP-87-8 DT. PRINTED: 87/10  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Active Clays as Related to Highway Design, A Study of

PUBLICATION NO. MSHD-RD-84-045 DT. PRINTED: 84/04  
ROUTING SYMBOL:  
CONTACT: Mississippi State Highway Department  
PREPARED BY: Mississippi State Highway Department  
AVAILABLE FROM: NTIS

Activities Report, Fiscal Year 1986

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Addendum to Final Design Report Diversion of Intercity Traffic at a Single Point

PUBLICATION NO. FHWA-RD-76-97 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Analysis of Movements and Forces on Bridge Approaches: A Cast Study (Bridge over Chesapeake Avenue on Interstate 471 in Campbell County, Kentucky)

PUBLICATION NO. UKTRP-85-10 DT. PRINTED: 85/04  
ROUTING SYMBOL:  
CONTACT: Kentucky Transportation Cabinet  
PREPARED BY: Kentucky Transportation Cabinet  
AVAILABLE FROM: NTIS

Analysis of National & Regional Travel Trends

PUBLICATION NO. DT. PRINTED: 86/12/15  
ROUTING SYMBOL: HPM-30  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Analysis of Railroad-Highway Crossing Active Advance Warning Devices:  
Research Report

PUBLICATION NO. FHWA/RD-85/182 DT. PRINTED: 85/10  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Analysis of Time and Schedule Performance on Selected Highway  
Projects, Final Report

PUBLICATION NO. FHWA-TS-85-217 DT. PRINTED: 87/01/15  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Analysis of Truck Traffic Between 1977 and 1983

PUBLICATION NO. FHWA-TX-87-68+420-2 DT. PRINTED: 87/05  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways and Public Transportation  
PREPARED BY: Texas State Department of Highways and Public Transportation  
AVAILABLE FROM: NTIS

Appalachian Development Highway System, 1987 Estimate Cost to Complete  
the

PUBLICATION NO. DT. PRINTED: 87/05  
ROUTING SYMBOL: HNG-13  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Application of Network Simulation Models to the Analysis of Urban  
Intersection Performance

PUBLICATION NO. FHWA-RD-73-95 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Applications and Limitations of the Spectral-Analysis-Of-Surface-Waves  
Method

PUBLICATION NO. FHWA-TX-87-70+437-3F DT. PRINTED: 87/12  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Arterial Analysis Package, User's Manual

PUBLICATION NO. FHWA-IP-86-1 DT. PRINTED: 86/12/15  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Asphalt Characterization and Performance Study

PUBLICATION NO. FHWA-GA-86-8301 DT. PRINTED: 86/06  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Assessment of National Small Rural Watersheds Program, Vol. I:  
Technical Report

PUBLICATION NO. FHWA-RD-77-21 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Assessment of National Small Rural Watersheds Program, Vol. II:  
Appendixes

PUBLICATION NO. FHWA-RD-77-28 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Automated Pavement Data Collection Equipment-Roughness and Profile  
Measurement

PUBLICATION NO. DT. PRINTED: 86/10/29  
ROUTING SYMBOL: HHO-43  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Backgrounder, The Single License Requirement for Truck and Bus Drivers

PUBLICATION NO. DT. PRINTED: 87/05/12  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

Bid Opening Report, Calendar Year 1986

PUBLICATION NO. DT. PRINTED: 87/03/31  
ROUTING SYMBOL: HNG-13  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Bid Opening Report, Federal-Aid Highway Construction, 1st Six Months 1987

PUBLICATION NO. DT. PRINTED: 87/09/08  
ROUTING SYMBOL: HNG-13  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Bored Piles, Technical Summary

PUBLICATION NO. FHWA-TS-86-206 DT. PRINTED: 87/03  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Bridge Construction Inspection, Core Curriculum Manual

PUBLICATION NO. DT. PRINTED: 87/05/18  
ROUTING SYMBOL: HNG-33  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Bridge Construction Inspection, Instruction Guide

PUBLICATION NO. DT. PRINTED: 87/05/18  
ROUTING SYMBOL: HNG-33  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Bridge Deck Drainage Guidelines: Final Report

PUBLICATION NO. FHWA-RD-87-014 DT. PRINTED: 87/09  
ROUTING SYMBOL: HNR-10  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: NTIS

Bridge Deck Expansion Devices

PUBLICATION NO. CDOH-DTP-85-10 DT. PRINTED: 85/09  
ROUTING SYMBOL:  
CONTACT: Colorado Department of Highways  
PREPARED BY: Colorado Department of Highways  
AVAILABLE FROM: NTIS

Bridge Management Systems

PUBLICATION NO. DT. PRINTED: 87/04/27  
ROUTING SYMBOL: HHO-41  
CONTACT: Office of highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Bridge Rail Retrofit for Curved Structures, Vol. 1: Final Report

PUBLICATION NO. FHWA-RD-85-040 DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Bridge Waterways Analysis Model: Research Report: Final Report

PUBLICATION NO. FHWA-RD-86-108 DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Characterization of Asphalt Using Gel Permeation Chromatography and Other Methods

PUBLICATION NO. FHWA-TX-87-53+419-1F DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Plans and Specifications

PUBLICATION NO. DT. PRINTED: 87/01  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Geotechnical and Materials Branch  
AVAILABLE FROM: Office of Engineering

Climatic-Materials-Instructural Pavement Analysis Program, The (User's Manual)

PUBLICATION NO. FHWA-RD-86-085 DT. PRINTED: 86/11/20  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Commercial Motor Vehicle Safety Act of 1986 (Reprint)

PUBLICATION NO. DT. PRINTED: 87/05/20  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

Composite Action of Precast Panel Bridge Decks in Negative Moment Regions

PUBLICATION NO. FHWA-TX-87-324-2 DT. PRINTED: 87/12  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Computer Controlled Traffic Signal Systems, Student Manual, 1/87

PUBLICATION NO. DT. PRINTED: 87/02/25  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Computer Programs for Safety Analysis

PUBLICATION NO. FHWA/RD-87-072 DT. PRINTED: 87/06  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Computer Programs for Safety Analysis: HISAM Users Manual and Operators Guide

PUBLICATION NO. FHWA/RD-87/073 DT. PRINTED: 87/06  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Concrete Pavement Design and Rehabilitation, Report 1 State of the Art  
of PCCP Evaluation Techniques

PUBLICATION NO. FHWA-AZ-86-264 DT. PRINTED: 86/06  
ROUTING SYMBOL:  
CONTACT: Arizona Transportation Research Center  
PREPARED BY: Arizona Transportation Research Center  
AVAILABLE FROM: NTIS

Concrete Pavement Restoration Performance Review, 4/87

PUBLICATION NO. DT. PRINTED: 87/06/01  
ROUTING SYMBOL: HHO-41  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Condition Survey of Continuous Bridge Decks

PUBLICATION NO. FHWA/TX-87/20+403/1F DT. PRINTED: 86/11  
ROUTING SYMBOL:  
CONTACT: Texas Transportation Institute  
PREPARED BY: Texas Transportation Institute  
AVAILABLE FROM: NTIS

Condition Surveys and Pavement Evaluation of Existing and Overlaid  
Rigid Pavements

PUBLICATION NO. FHWA-TX-86/35+388-5F DT. PRINTED: 85/11  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Constant Warning Time Devices for Railroad-Highway Crossings:  
Technical Summary

PUBLICATION NO. FHWA-RD-86-156 DT. PRINTED: 87/06  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Construction Equipment Ownership & Operating Expenses (Reprint)

PUBLICATION NO. DT. PRINTED: 86/10/28  
ROUTING SYMBOL: HHO-32  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Construction Inspection Techniques for Base Course Construction,  
Instructor Guide, 5/86

PUBLICATION NO. DT. PRINTED: 87/07/31  
ROUTING SYMBOL: HHO-31  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Construction Inspection Techniques for Flexible Pavements, Instructors  
Guide, 5/86

PUBLICATION NO. DT. PRINTED: 87/06/25  
ROUTING SYMBOL: HHO-31  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Contract Administration Core Curriculum, Participant's Manual

PUBLICATION NO. DT. PRINTED: 87/03  
ROUTING SYMBOL: HHO-1  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Corridor Traffic Management for Major Highway Reconstruction, Case  
Studies, (Reprint)

PUBLICATION NO. DT. PRINTED: 86/11/21  
ROUTING SYMBOL: HPN-23  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

Corrosion of Highway and Bridge Structural Metals by CMA: Final Report

PUBLICATION NO. FHWA-RD-86-108 DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HRD-30  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Countermeasures for Sign Vandalism, Manual on

PUBLICATION NO. FHWA-IP-86-7 DT. PRINTED: 87/03  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS



Course Announcement 87-2 Grants and Fellowship"

PUBLICATION NO. DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Crack & Seat Performance Review Report, 4/87

PUBLICATION NO. DT. PRINTED: 87/06/01  
ROUTING SYMBOL: HHQ-41  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Culvert Analysis in Microcomputer Program Applications Guide, 5/87,  
FHWA-EPD-87-101

PUBLICATION NO. FHWA-EPD-87-101 DT. PRINTED: 87/08/20  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Culvert Inspection Manual, Supplement to the Bridge Inspector's  
Training Manual

PUBLICATION NO. FHWA-IP-86-2 DT. PRINTED: 87/03/17  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Culvert Inspection Manual, Technical Summary

PUBLICATION NO. FHWA-IP-86-2 DT. PRINTED: 87/03  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Culvert Inspection, Class Handout for a Course on

PUBLICATION NO. DT. PRINTED: 87/05  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Design & Operation of Work Zone Traffic Control, Instructor's Guide

PUBLICATION NO. DT. PRINTED: 86/12/04  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Design & Operation of Work Zone Traffic Control, Participant Notebook

PUBLICATION NO. DT. PRINTED: 86/12/04  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Design of Prestressed Concrete Girders Without End Blocks

PUBLICATION NO. WA-RD-81.1 DT. PRINTED: 86/02  
ROUTING SYMBOL:  
CONTACT: Washington State Department of Transportation  
PREPARED BY: Washington State Department of Transportation  
AVAILABLE FROM: NTIS

Design of Urban Highway Drainage - The State of the Art (Reprint)

PUBLICATION NO. FHWA-TS-79-225 DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Design of Urban Streets, Student Textbook (Reprint)

PUBLICATION NO. DT. PRINTED: 86/11/04  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Detection of Delamination and Cavities in Concrete

PUBLICATION NO. FHWA-MD-87-05 DT. PRINTED: 87/12  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Determination of Insertion Loss and Evaluation of Traffic noise  
Barrier Design Method - Rt. 444

PUBLICATION NO. FHWA-NJ-86-002 DT. PRINTED: 86/06  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Determination of the Physical, Chemical and Metallurgical  
Characteristics of Steels Furnished From Typical Highway Bridges, The

PUBLICATION NO. FHWA-RD-74-4 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Determining Water Content of Fresh Concrete by Microwave Reflection or  
Transmission Measurement

PUBLICATION NO. FHWA-VA-88-3 DT. PRINTED: 87/08  
ROUTING SYMBOL:  
CONTACT: Virginia Department of Transportation  
PREPARED BY: Virginia Department of Transportation  
AVAILABLE FROM: NTIS

Development of Strength in Cements: Interim Report

PUBLICATION NO. FHWA-RD-87-028 DT. PRINTED: 87/11  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Development of a Methodology for Estimating Embankment Damage Due to  
Flood Overtopping

PUBLICATION NO. FHWA/RD-86/126 DT. PRINTED: 87/03  
ROUTING SYMBOL: HNR-10  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Development of a Prototype Miniature Magnetometer Vehicle Sensor

PUBLICATION NO. FHWA-RD-71-4 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Development of an Economic Model to Compare Median Barrier Costs  
PUBLICATION NO. FHWA-NY-RR-87-138 DT. PRINTED: 87/02  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Development of an Overhead Vehicle Sensor System  
PUBLICATION NO. FHWA-TX+426-1F DT. PRINTED: 87/12  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Driver Licenses - 1985  
PUBLICATION NO. DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Driver Performance Measurement Research, Vol. 1, Technical Report  
PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Driver Performance Tests: Their Role and Potential  
PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Drivers Licensing Television Information Display  
PUBLICATION NO. FHWA-AZ-87-245 DT. PRINTED: 87/04  
ROUTING SYMBOL:  
CONTACT: Arizona Transportation Research Center  
PREPARED BY: Arizona Transportation Research Center  
AVAILABLE FROM: NTIS

Drum Mix Plants - Equipment and Operations  
PUBLICATION NO. FHWA-TX-87-54+440-1F DT. PRINTED: 86/11  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Dynamic Compaction for Highway Construction, Vol. I: Design and  
Construction Guidelines  
PUBLICATION NO. FHWA-RD-86-133 DT. PRINTED: 86/11/07  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Economic Analyses of Millings  
PUBLICATION NO. UKTRP-86-18 DT. PRINTED: 86/07  
ROUTING SYMBOL:  
CONTACT: Kentucky Transportation Cabinet  
PREPARED BY: Kentucky Transportation Cabinet  
AVAILABLE FROM: NTIS

Economic Assessment of Potential Solutions for Improving Motorist  
Route Following  
PUBLICATION NO. FHWA-RD-86-029 DT. PRINTED: 86/10/28  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Effect of Calcium Magnesium Acetate (CMA) on Pavements and Motor  
Vehicles  
PUBLICATION NO. FHWA-RD-87-037 DT. PRINTED: 87/04  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Effect of Moisture and Aging on Asphalt Life: Part 2: Effect of Aging  
PUBLICATION NO. FHWA-OR-RD-01-2 DT. PRINTED: 86/01  
ROUTING SYMBOL:  
CONTACT: Oregon Department of Transportation  
PREPARED BY: Oregon Department of Transportation  
AVAILABLE FROM: NTIS

Effect of Moisture and Aging on Asphalt Pavement Life: Part 1: Effect of Moisture

PUBLICATION NO. FHWA-OR-RD-86-01 DT. PRINTED: 86/01  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Effectiveness of Existing Rehabilitation Techniques for Jointed Concrete Pavements: Final Report

PUBLICATION NO. FHWA-IL-UI-215 DT. PRINTED: 86/08  
ROUTING SYMBOL:  
CONTACT: Illinois Department of Transportation  
PREPARED BY: Illinois Department of Transportation  
AVAILABLE FROM: NTIS

Effectiveness of Fly Ash Replacement in the Reduction of Damage Due to Alkali-Aggregate Reaction in Concrete

PUBLICATION NO. FHWA/TX-87/15+450-1 DT. PRINTED: 86/05  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Effectiveness of Texas Membrane Curing Compound Quality and Application Requirements, The

PUBLICATION NO. FHWA/TX-87/05+427-1F DT. PRINTED: 86/06  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Effects of Automobile Tire Loads On Thin Flexible Pavements

PUBLICATION NO. FHWA-TX-86/60+345-2F DT. PRINTED: 87/04  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Effects of Calcium Magnesium Acetate (CMA) on Pavements & Motor Vehicles, F/R, 4/87, FHWA-RD-87-037

PUBLICATION NO. FHWA-RD-87-037 DT. PRINTED: 87/07/28  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Operations Staff

Effects of Septic Tank Additives on Scum Accumulation in Septic Tanks

PUBLICATION NO. FHWA/CA/TL-86/07 DT. PRINTED: 86/05  
ROUTING SYMBOL:  
CONTACT: California Department of Transportation  
PREPARED BY: California Department of Transportation  
AVAILABLE FROM: NTIS

Effects of Wetting and Drying on the Long-Term Shear Strength  
Parameters for Compacted Beaumont Clay, The

PUBLICATION NO. FHWA-TX-87-40+436-2F DT. PRINTED: 86/11  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Electrically Conductive Polymer Concrete Overlays, Final Report, 6/87,  
FHWA-RD-84-033

PUBLICATION NO. FHWA-RD-84-033 DT. PRINTED: 87/08/20  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Operations Staff

End-Bolted Cover Plates

PUBLICATION NO. FHWA-MD-82-02 DT. PRINTED: 83/01  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Enhanced UTCS Software Applications Manual

PUBLICATION NO. FHWA-IP-87-10 DT. PRINTED: 87/12  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Environmental Effects on Pavements (Reprint)

PUBLICATION NO. FHWA-RD-84-114 DT. PRINTED: 86/11/20  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Environmental Effects on Pavements - Drainage Manual, Vol. 4 (R)  
PUBLICATION NO. FHWA-RD-84-116 DT. PRINTED: 86/11/20  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Environmental Effects on Pavements - Theory Manual, Vol. 3  
PUBLICATION NO. DT. PRINTED: 86/11/25  
ROUTING SYMBOL: HNR-10  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Environmental Effects on Pavements: Technical Summary  
PUBLICATION NO. FHWA-RD-84-113 DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Environmental and Safety Aspects of the Use of Sulfur in Highway  
Pavements: Technical Summary  
PUBLICATION NO. DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Estimate of Cost to Complete the Appalachian Highway System,  
Instruction Manual, 1987  
PUBLICATION NO. DT. PRINTED: 87/05/05  
ROUTING SYMBOL: HNG-13  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Estimating Embankment Damage Due to Flood Overtopping, Development of  
a Methodology for  
PUBLICATION NO. FHWA-RD-86-126 DT. PRINTED: 87/03  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS



Evaluation Procedure for Long-Span Corrugated Metal Structures  
(In-Situ)

PUBLICATION NO. FHWA/OH-86/013 DT. PRINTED: 86/03

ROUTING SYMBOL:

CONTACT: Ohio Department of Transportation

PREPARED BY: Ohio Department of Transportation

AVAILABLE FROM: NTIS

Evaluation of Asphalt Properties and Their Relationship to Pavement  
Performance-Literature Review and Development of Composition Analysis  
Method: Interim Report

PUBLICATION NO. FHWA/OR-RD-86-02 DT. PRINTED: 86/02

ROUTING SYMBOL: HRD-10

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Evaluation of Construction-Zone Pavement Marking Materials

PUBLICATION NO. DT. PRINTED: 87/12

ROUTING SYMBOL: HSR-30

CONTACT: Office of Safety and Traffic Operations

PREPARED BY: Office of Safety and Traffic Operations

AVAILABLE FROM: NTIS

Evaluation of Energy Sources for Roadside Rest Areas

PUBLICATION NO. FHWA-T-87-442-2 DT. PRINTED: 87/12

ROUTING SYMBOL: HNR-20

CONTACT: Office of Engineering and Highway Operations

PREPARED BY: Office of Engineering and Highway Operations

AVAILABLE FROM: NTIS

Evaluation of Epoflex Pavement Markings

PUBLICATION NO. FHWA-NY-RR-87-139 DT. PRINTED: 87/06

ROUTING SYMBOL: HRD-10

CONTACT: Offices of Research, Development, and Technology

PREPARED BY: Offices of Research, Development, and Technology

AVAILABLE FROM: NTIS

Evaluation of Long-Span Corrugated Metal Structures

PUBLICATION NO. FHWA/OH-86-011 DT. PRINTED: 86/05

ROUTING SYMBOL:

CONTACT: Ohio Department of Transportation

PREPARED BY: Ohio Department of Transportation

AVAILABLE FROM: NTIS

Evaluation of Oklahoma Pavement Design Procedures

PUBLICATION NO. FHWA-OK-85(01) DT. PRINTED: 85/08  
ROUTING SYMBOL:  
CONTACT: Oklahoma Department of Transportation  
PREPARED BY: Oklahoma Department of Transportation  
AVAILABLE FROM: NTIS

Evaluation of Pavement Deflection Measuring Equipment

PUBLICATION NO. FHWA-TS-87-208 DT. PRINTED: 87/03  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Evaluation of Procedures Used to Predict Moisture Damage in Asphalt Mixtures: Executive Summary

PUBLICATION NO. FHWA-RD-86-090 DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Evaluation of Waterborne Fast Dry Traffic Paints

PUBLICATION NO. MSHD-RD-86-710 DT. PRINTED: 86/10  
ROUTING SYMBOL:  
CONTACT: Mississippi State Highway Department  
PREPARED BY: Mississippi State Highway Department  
AVAILABLE FROM: NTIS

Evaluation of Wide Edgelines on Two-Lane Rural Roads: Final Report

PUBLICATION NO. FHWA-VA-87-R23 DT. PRINTED: 87/04  
ROUTING SYMBOL:  
CONTACT: Virginia Department of Transportation  
PREPARED BY: Virginia Department of Transportation  
AVAILABLE FROM: NTIS

Excellence in Highway Design, 1986 Biennial Awards

PUBLICATION NO. DT. PRINTED: 86/10/10  
ROUTING SYMBOL: HNG-14  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Experimental Investigation of Skewed Elastomeric Expansion Bridge Bearings

PUBLICATION NO. FHWA-OK-87(3) DT. PRINTED: 87/04  
ROUTING SYMBOL:  
CONTACT: Oklahoma Department of Transportation  
PREPARED BY: Oklahoma Department of Transportation  
AVAILABLE FROM: NTIS

Experimental Overlays Utilizing Magnesium Phosphate, Methyl Methacrylate and Polyester-Styrene Concretes

PUBLICATION NO. FHWA/CA/TL-85/19 DT. PRINTED: 85/07  
ROUTING SYMBOL:  
CONTACT: California Department of Transportation  
PREPARED BY: California Department of Transportation  
AVAILABLE FROM: NTIS

FCP Annual Progress Report, FY-86 (Executive Summary)

PUBLICATION NO. DT. PRINTED: 86/12/10  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

FHWA Financial Management Handbook

PUBLICATION NO. DT. PRINTED: 87/09  
ROUTING SYMBOL: HFS-21  
CONTACT: Office of Fiscal Services  
PREPARED BY: Office of Fiscal Services  
AVAILABLE FROM: Office of Fiscal Services

FHWA Maintenance Review Manual

PUBLICATION NO. DT. PRINTED: 87/02/04  
ROUTING SYMBOL: HHO-31  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

FHWA NEWS, Vol. 3, No. 1, Winter FY 1987

PUBLICATION NO. DT. PRINTED: 87/01/22  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

FHWA NEWS, Volume 3, No. 2, Summer FY 1987  
PUBLICATION NO. DT. PRINTED: 87/07/09  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

FHWA Publications Index, 1984-1986  
PUBLICATION NO. DT. PRINTED: 87/07/27  
ROUTING SYMBOL: HMS-24  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

FHWA'S Technology Transfer Program T2 (R)  
PUBLICATION NO. DT. PRINTED: 87/06/25  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

FHWA's Historically Black Colleges & Universities Program  
PUBLICATION NO. DT. PRINTED: 87/03/25  
ROUTING SYMBOL: HCR-20  
CONTACT: Office of Civil Rights  
PREPARED BY: Office of Civil Rights  
AVAILABLE FROM: Office of Civil Rights

FHWA's Technology Transfer Program T2 (Reprint)  
PUBLICATION NO. DT. PRINTED: 86/12/15  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Factors Affecting the Long Term Strength of Compacted Beaumont Clay

PUBLICATION NO. FHWA-TX-87-39+436-1 DT. PRINTED: 86/10  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Fatal and Injury Accident Rates on Public Roads in the United States

PUBLICATION NO. DT. PRINTED: 87/05  
ROUTING SYMBOL: HHS-1  
CONTACT: Office of Highway Safety  
PREPARED BY: Office of Highway Safety  
AVAILABLE FROM: Office of Highway Safety

Feasibility of Exclusive Truck Lanes for the Houston-Beaumont Corridor, The

PUBLICATION NO. FHWA/TX-87/57+393-3F DT. PRINTED: 87/03  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Feasibility of Intergrating Urban Traffic Operations Techniques, Vol. 1: Executive Summary

PUBLICATION NO. FHWA-RD-87-021 DT. PRINTED: 87/03/17  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Operations Staff

Federal-Aid Highway Construction Contracts, Bid Opening Report, Calendar Year 1986

PUBLICATION NO. DT. PRINTED: 87/04  
ROUTING SYMBOL: HNG-13  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Federal-Aid Highway Construction Contracts, Bid Opening Report, First Six Months 1987

PUBLICATION NO. DT. PRINTED: 87/06  
ROUTING SYMBOL: HNG-13  
CONTACT: Federal-Aid & Design Division  
PREPARED BY: Federal-Aid & Design Division  
AVAILABLE FROM: Federal-Aid & Design Division

Federal-Aid Highway Construction Funds for Ridesharing

PUBLICATION NO. FHWA-SA-88-016 DT. PRINTED: 87/11  
ROUTING SYMBOL: HTO-34  
CONTACT: Office of Traffic Operations  
PREPARED BY: Office of Traffic Operations  
AVAILABLE FROM: Office of Traffic Operations

Field Evaluation of Subbase Friction Characteristics

PUBLICATION NO. FHWA-TX-87-36+401-5 DT. PRINTED: 86/09

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Films for Highway Safety and Traffic Engineers, Implementation Manual

PUBLICATION NO. FHWA-IP-86-25 DT. PRINTED: 86/12/30

ROUTING SYMBOL: HRD-10

CONTACT: Office of Operations Staff

PREPARED BY: Office of Operations Staff

AVAILABLE FROM: Office of Operations Staff

Flagger Safety and Alternatives to Manual Flagging

PUBLICATION NO. FHWA/TX-87/38+406-1F DT. PRINTED: 87/04

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Flashing Signal Not Helped By STOP Sign: Technical Summary

PUBLICATION NO. FHWA-RD-87-066 DT. PRINTED: 87/02

ROUTING SYMBOL: HSR-30

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Friction Losses in Unbonded Post-Tensioning Tendons

PUBLICATION NO. FHWA-TS-87-77+401-6 DT. PRINTED: 86/11

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Front-Wheel Brake Safety, The Facts Speak for Themselves (4 versions)

PUBLICATION NO. DT. PRINTED: 87/09/29

ROUTING SYMBOL: HCS-20

CONTACT: Office of Motor Carrier Standards

PREPARED BY: Office of Motor Carrier Standards

AVAILABLE FROM: Office of Motor Carrier Standards

Frost Action Predictive Techniques for Roads & Airfields, Vol. 1,  
Comp. Research Findings, F/R, 6/87

PUBLICATION NO. FHWA-RD-87-057 DT. PRINTED: 87/07/28  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Operations Staff

Frost Action Predictive Techniques for Roads and Airfields: Vol. I: A  
Comprehensive Survey of Research Findings

PUBLICATION NO. FHWA-RD-87-057 DT. PRINTED: 87/12  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Full-Scale Experimental Verification of an Analytical Model of  
Suppressing Excessive Bridge Vibrations, The

PUBLICATION NO. DT. PRINTED: 87/12  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Functional Requirements of Highway Safety Features, Instructor Guide,  
Rev. 3/87 (R)

PUBLICATION NO. DT. PRINTED: 87/05/08  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: NTIS  
AVAILABLE FROM: National Highway Institute

Geocomposite Drains, Vol. 1: Engineering Assessment and Preliminary  
Guidelines

PUBLICATION NO. FHWA-RD-86-171 DT. PRINTED: 86/11/24  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Guardrails on Low Fill Bridge Length Culverts, Use of

PUBLICATION NO. FHWA-TX-87-405-2F DT. PRINTED: 87/08  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

45 Sensitivity Analysis, Part 1, Characteristics of Data

PUBLICATION NO. DT. PRINTED: 87/06/26

ROUTING SYMBOL: HPN-21

CONTACT: Office of Planning

PREPARED BY: Office of Planning

AVAILABLE FROM: Office of Planning

gh Float Emulsion Asphalt in Alaska, Use of

PUBLICATION NO. FHWA-AK-RD-87-03 DT. PRINTED: 87/06

ROUTING SYMBOL: HRD-10

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

gh Strength Concrete in Texas Highways, Guidelines for Use of

PUBLICATION NO. FHWA/TX-87/35+367-1F DT. PRINTED: 86/08

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways and Public Transportation

PREPARED BY: Texas State Department of Highways and Public Transportation

AVAILABLE FROM: NTIS

ghway Bridge Replacement & Rehabilitation, The Eighth 1987 Annual

Report to Congress on

PUBLICATION NO. DT. PRINTED: 87/06/12

ROUTING SYMBOL: HNG-33

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

ghway Bridge Replacement and Rehabilitation Program, Eighth Annual

Report to Congress

PUBLICATION NO. DT. PRINTED: 87/07

ROUTING SYMBOL: HNG-1

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

ghway Capacity Training Course, Handouts for

PUBLICATION NO. DT. PRINTED: 86/12/12

ROUTING SYMBOL: HNG-14

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering



Highway Capacity and Quality of Flow Manual, Student Workbook (R)

PUBLICATION NO. DT. PRINTED: 87/02/19  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Highway Community on the Occasion of the 18th World Road Congress, A  
Message to the World

PUBLICATION NO. DT. PRINTED: 87/08/17  
ROUTING SYMBOL: HPI-10  
CONTACT: International Highway Programs Office  
PREPARED BY: International Highway Programs Office  
AVAILABLE FROM: International Highway Programs Office

Highway Construction Contract Claims: Causes and Resolution Practices

PUBLICATION NO. FHWA-TS-85-215 DT. PRINTED: 87/01/15  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Highway Functional Classification, Concepts, Criteria & Procedures (R)

PUBLICATION NO. DT. PRINTED: 87/06/25  
ROUTING SYMBOL: HPN-12  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

Highway Performance Monitoring System (HPMS) Field Manual

PUBLICATION NO. FHWA Order M 5600.1A DT. PRINTED: 87/10  
ROUTING SYMBOL: HPM-20  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Mgmt.

Highway Performance Monitoring System Analytical Process, Part 1:  
Characteristics of the Data

PUBLICATION NO. DT. PRINTED: 87/07  
ROUTING SYMBOL: HPN-21  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

Highway Safety Engineering Studies Procedural Guide

PUBLICATION NO. FHWA-HI-88-039 DT. PRINTED: 87/11  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Highway Safety Engineering Studies Training Course, Case Studies,  
Appendices J-L, 3/85 (Reprint)

PUBLICATION NO. DT. PRINTED: 87/09/23  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Highway Safety Improvement Programs, Annual Report on 1987

PUBLICATION NO. DT. PRINTED: 87/08/17  
ROUTING SYMBOL: HHS-21  
CONTACT: Office of Highway Safety  
PREPARED BY: Office of Highway Safety  
AVAILABLE FROM: Office of Highway Safety

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PUBLICATION NO. DT. PRINTED: 87/06  
ROUTING SYMBOL: HHS-21  
CONTACT: Office of Highway Safety  
PREPARED BY: Office of Highway Safety  
AVAILABLE FROM: Office of Highway Safety

Highway Safety Performance, 1985 Fatal & Injury Acccident Rates, 5/87

PUBLICATION NO. DT. PRINTED: 87/06/23  
ROUTING SYMBOL: HHS-22  
CONTACT: Office of Highway Safety  
PREPARED BY: Office of Highway Safety  
AVAILABLE FROM: Office of Highway Safety

Highway Statistics, Summary to 1985

PUBLICATION NO. DT. PRINTED: 87/04/24  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Mangement  
AVAILABLE FROM: Office of Highway Information Management

Highway Statistics, Tables for 1985

PUBLICATION NO. DT. PRINTED: 86/10/30  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Highway Statistics, 1985

PUBLICATION NO. DT. PRINTED: 86/10/10  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Highways and Wetlands, Compensating Wetland Losses (R)

PUBLICATION NO. FHWA-IP-86-22 DT. PRINTED: 87/08/04  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Hot Mix Recycling Evaluation in Washington State

PUBLICATION NO. WA-RD-98.1 DT. PRINTED: 86/12  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Hot Mix Recycling Evaluation in Washington State: Appendix - Project Evaluations

PUBLICATION NO. WA-RD-98.2 DT. PRINTED: 86/12  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Hot-Mix Bituminous Paving Manual

PUBLICATION NO. FHWA-ED-88-028 DT. PRINTED: 87/12  
ROUTING SYMBOL: HHO-33  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Human Factors: The Role of Driver Expectancy and Behavior in Highway Design and Traffic Control

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HTO-34  
CONTACT: Office of Traffic Operations  
PREPARED BY: Office of Traffic Operations  
AVAILABLE FROM: Office of Traffic Operations

Hydrated Lime as an Antistripping Additive, The Use of

PUBLICATION NO. FHWA-VA-87-16 DT. PRINTED: 87/01  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Hydraulic Engineering Circular NO. 17 (4-81) Reprint

PUBLICATION NO. DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Hydraulic Engineering Circular NO. 5 (12-85) Reprint

PUBLICATION NO. DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

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PUBLICATION NO. DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HNG-31  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Ice Melting Characteristics of Calcium Magnesium Acetate: Executive Summary

PUBLICATION NO. FHWA-RD-86-180 DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Identification of Driver Licensing Research Requirements  
PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Impact Attenuators - A Current Engineering Evaluation  
PUBLICATION NO. FHWA/RD-86/055 DT. PRINTED: 86/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Impact Attenuators - A Current Engineering Evaluation: Final  
Report-Executive Summary  
PUBLICATION NO. FHWA/RD-86/054 DT. PRINTED: 86/08  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Impact of Arterial Lane Obstructions: Technical Summary  
PUBLICATION NO. FHWA-RD-86-138 DT. PRINTED: 87/02  
ROUTING SYMBOL: HSR-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Impacts of Freeway Surveillance and Control on Eastbound SR 520  
PUBLICATION NO. WA-RD-99.1 DT. PRINTED: 87/02  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Improved Field Reliability of High Performance Coatings - Appendix A -  
Best Current Technology  
PUBLICATION NO. FHWA-RD-82-119 DT. PRINTED: 86/12/05  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Improved Field Reliability of High Performance Coatings Identification of the Technology Ease

PUBLICATION NO. FHWA-RD-82-118 DT. PRINTED: 86/12/05  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Improved Methods and Equipment to Conduct Pavement Distress Surveys

PUBLICATION NO. FHWA-TS-87-213 DT. PRINTED: 87/04  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

In-Situ Determination of Moisture levels in Structural Concrete by Modified NMR

PUBLICATION NO. FHWA-RD-85-101 DT. PRINTED: 87/09  
ROUTING SYMBOL: HNR-10  
CONTACT: Office of Engineering and Operations  
PREPARED BY: Office of Engineering and Operations  
AVAILABLE FROM: NTIS

Increased Capacity of Highways and Arterials Through the Use of Flyovers and Grade Separated Ramps

PUBLICATION NO. FHWA-TX-87-376-1 DT. PRINTED: 87/06  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Inexpensive Accident Countermeasures at Narrow Bridges

PUBLICATION NO. FHWA/RD-87/024 DT. PRINTED: 87/04  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Innovations in Transportation, 7/87

PUBLICATION NO. DT. PRINTED: 87/07/10  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Inspection of Fracture Critical Bridge Members Participant Notebook

PUBLICATION NO. FHWA-HI-88-038 DT. PRINTED: 87/10  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Inspection of Fracture Critical Bridge Members, Supplement to the  
Bridge Inspector's Training Manual

PUBLICATION NO. FHWA-IP-86-26 DT. PRINTED: 86/11/07  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Installation Inspection Procedures for Long-Span Corrugated Metal  
Structures

PUBLICATION NO. FHWA/OH-86/012 DT. PRINTED: 86/03  
ROUTING SYMBOL:  
CONTACT: Ohio Department of Transportation  
PREPARED BY: Ohio Department of Transportation  
AVAILABLE FROM: NTIS

Internal Energy Dissipators for Culverts

PUBLICATION NO. FHWA-OH-84-007 DT. PRINTED: 84/09  
ROUTING SYMBOL:  
CONTACT: Ohio Department of Transportation  
PREPARED BY: Ohio Department of Transportation  
AVAILABLE FROM: NTIS

Investigation of Material and Structural Properties of Asphalt-Rubber  
Paving Mixture

PUBLICATION NO. FHWA-RD-86-027 DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Laboratory Procedures to Determine the Breakaway Behavior of Luminaire  
Supports in Minisized Vehicle Collisions, Vol. III: FOIL Operations and  
Safety Plan

PUBLICATION NO. FHWA/RD-86/107 DT. PRINTED: 87/08  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Laboratory Procedures to Determine the Breakaway Behavior of Luminaire Supports in Minisized Vehicle Collisions, Vol. II: Technical Report (

PUBLICATION NO. FHWA/RD-88/106 DT. PRINTED: 87/08

ROUTING SYMBOL: HSR-20

CONTACT: Office of Safety and Traffic Operations

PREPARED BY: Office of Safety and Traffic Operations

AVAILABLE FROM: NTIS

Laboratory Procedures to Determine the Breakaway Behavior of Luminaire Supports in Minisized Vehicle Collisions, Vol. I: Executive Summary

PUBLICATION NO. FHWA/RD-86/105 DT. PRINTED: 87/08

ROUTING SYMBOL: HSR-20

CONTACT: Office of Safety and Traffic Operations

PREPARED BY: Office of Safety and Traffic Operations

AVAILABLE FROM: NTIS

Large Truck Safety and Roadway Elements

PUBLICATION NO. 8404 DT. PRINTED: 85/11

ROUTING SYMBOL: HRD-10

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Legibility and Driver Response to Selected Lane and Road Closure Barricades

PUBLICATION NO. FHWA-RD-87-091 DT. PRINTED: 87/06

ROUTING SYMBOL: HSR-10

CONTACT: Office of Safety & Traffic Operations R & D

PREPARED BY: Office of Safety & Traffic Operations R & D

AVAILABLE FROM: NTIS

License Requirement for Truck and Bus Drivers, The Single

PUBLICATION NO. DT. PRINTED: 87/05/12

ROUTING SYMBOL: HPA-1

CONTACT: Office of Public Affairs

PREPARED BY: Office of Public Affairs

AVAILABLE FROM: Office of Public Affairs

Lime and Cement Treatment of Soils for Repair of Earth Slopes

PUBLICATION NO. FHWA-TX-87-47+435-2F DT. PRINTED: 86/11

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS



Longer Combination Vehicle Operations in Western States, 10/86  
PUBLICATION NO. DT. PRINTED: 86/11/04  
ROUTING SYMBOL: HPP-11  
CONTACT: Office of Policy Development  
PREPARED BY: Office of Policy Development  
AVAILABLE FROM: Office of Policy Development

Management of Roadside Trees, Guide to  
PUBLICATION NO. FHWA-IP-86-17 DT. PRINTED: 86/12/30  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Manual De Mantenimiento De Calles Y Carreteras, Parte 1  
PUBLICATION NO. DT. PRINTED: 87/07  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Manual De Mantenimiento De Calles Y Carreteras, Parte 2  
PUBLICATION NO. DT. PRINTED: 87/07  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Manual On Uniform Traffic Control Devices, Revision No. 2, 12/83  
(Reprint)  
PUBLICATION NO. DT. PRINTED: 87/09/22  
ROUTING SYMBOL: HTO-21  
CONTACT: Office of Traffic Operations  
PREPARED BY: Office of Traffic Operations  
AVAILABLE FROM: Office of Traffic Operations

Manual for Highway Storm Water Pumping Stations, Vol. 1: Final Report  
PUBLICATION NO. FHWA-IP-82-17 DT. PRINTED: 87/08/05  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Manual for Highway Storm Water Pumping Stations, Vol. 2: Final Report

PUBLICATION NO. FHWA-IP-82-17 DT. PRINTED: 87/07/28  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Manual in Countermeasures for Sign Vandalism

PUBLICATION NO. FHWA-IP-86-7 DT. PRINTED: 87/03/17  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Manual on Real Time Motorist Information Displays: Final Report

PUBLICATION NO. FHWA-IP-86-16 DT. PRINTED: 86/10/07  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Mathematical Model of Frost Heave That Thaw Settlement in Pavements  
Users Guide for the

PUBLICATION NO. DT. PRINTED: 86/11/25  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Mathematical Model of Frost Heave/Thaw Settlement (Reprint)

PUBLICATION NO. DT. PRINTED: 86/11/25  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Mechanistic Rut Depth Model, Modification of the

PUBLICATION NO. FHWA-RD-86-082 DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Median Barrier Terminals and Median Treatments, Vol. I: Research and Appendix A

PUBLICATION NO. FHWA-RD-88-004 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Methane Conversion for Highway Fuel Use

PUBLICATION NO. DT. PRINTED: 86/11/05  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Methods for Predicting Truck Speed Loss on Grades, 10/86,  
FHWA-RD-86-059

PUBLICATION NO. FHWA-RD-86-059 DT. PRINTED: 87/09/17  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety & Traffic Operations R&D  
PREPARED BY: Office of Safety & Traffic Operations R&D  
AVAILABLE FROM: Office of Safety & Traffic Operations R&D

Methods to Determine Public Improvement, Increase or Decrease in Value

PUBLICATION NO. DT. PRINTED: 86/11/17  
ROUTING SYMBOL: HRW-10  
CONTACT: Office of Right-of-Way  
PREPARED BY: Office of Right-of-Way  
AVAILABLE FROM: Office of Right-of-Way

Minimum Luminance Requirements for Official Highway Signs: Technical Summary

PUBLICATION NO. FHWA-RD-86-150 DT. PRINTED: 87/06  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Model Tests of Modes of Failure of Joint C13N of Eyebars Chain, Point Pleasant Bridge Investigation

PUBLICATION NO. FHWA-RD-74-19 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Monthly Motor Fuel Reported by States (Issued Monthly)

PUBLICATION NO. DT. PRINTED: 87/04/27  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Motor Carrier Activities of the FHWA

PUBLICATION NO. DT. PRINTED: 87/05/18  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

NEMA Microcomputer Controller Training Course, Student Manual #1332

PUBLICATION NO. DT. PRINTED: 87/01/21  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

NEMA Microprocessor Controller Training Course, Student Manual

PUBLICATION NO. FHWA-IP-86-4 DT. PRINTED: 87/01  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: Transportation Department and Research Institute  
AVAILABLE FROM: National Highway Institute

NEMA Microprocessor Controller Training Course, Student Manual

PUBLICATION NO. FHWA-IP-86-4 DT. PRINTED: 87/01  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

NEMA Standards for Microprocessor Controller Training Course

PUBLICATION NO. DT. PRINTED: 87/01/30  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

NEMA Traffic Control Systems

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

National Highway Institute Course Catalog, The

PUBLICATION NO. FHWA-HI-88-037 DT. PRINTED: 87/10  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

National Highway Institute FY-86 Activities Report

PUBLICATION NO. DT. PRINTED: 87/02/03  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

New Bridge Construction and Rehabilitation With Participating Federal Funds, FY-86

PUBLICATION NO. DT. PRINTED: 87/03/31  
ROUTING SYMBOL: HNG-33  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

New Directions for Learning About Safety Effectiveness: Technical Summary

PUBLICATION NO. FHWA-RD-86-015 DT. PRINTED: 87/08  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

New Materials and Techniques for the Rehabilitation of Portland Cement Concrete

PUBLICATION NO. FHWA/CA/TL-85/16 DT. PRINTED: 85/10  
ROUTING SYMBOL:  
CONTACT: California Department of Transportation  
PREPARED BY: California Department of Transportation  
AVAILABLE FROM: NTIS

Off-Peak Use of the Houston Transitway System

PUBLICATION NO. FHWA-TX-87-62+484-5 DT. PRINTED: 87/03

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways and Public Transportation

PREPARED BY: Texas State Department of Highways and Public Transportation

AVAILABLE FROM: NTIS

Only 1 License for People Who Carry a Lot of Weight (Folder)

PUBLICATION NO. DT. PRINTED: 87/06/05

ROUTING SYMBOL: HIA-10

CONTACT: Office of Motor Carrier Info. Mgmt. & Analysis

PREPARED BY: Office of Motor Carrier Info. Mgmt. & Analysis

AVAILABLE FROM: Office of Motor Carrier Info. Mgmt. & Analysis

Operational Effectiveness of Passing Lanes on Two-Lane Highways

PUBLICATION NO. FHWA-RD-86-195 DT. PRINTED: 86/06

ROUTING SYMBOL: HSR-30

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Optimization and Test of a Cavitation Water Jet

PUBLICATION NO. FHWA-TS-86-212 DT. PRINTED: 86/10

ROUTING SYMBOL: HRT-10

CONTACT: Office of Implementation

PREPARED BY: Office of Implementation

AVAILABLE FROM: NTIS

Our Nation's Highways, Selected Facts and Figures, 4/87

PUBLICATION NO. DT. PRINTED: 87/04/24

ROUTING SYMBOL: HPM-10

CONTACT: Office of Highway Information Management

PREPARED BY: Office of Highway Information Management

AVAILABLE FROM: Office of Highway Information Management

Pavement Instrumentation, EP-621, 6/85

PUBLICATION NO. DT. PRINTED: 86/12/08

ROUTING SYMBOL: HHO-41

CONTACT: Office of Highway Operations

PREPARED BY: Office of Highway Operations

AVAILABLE FROM: Office of Highway Operations

Pavement Marking Equipment, Guide to Currently Available  
PUBLICATION NO. FHWA-TS-87-219 DT. PRINTED: 87/05  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Pavement Marking Test and Evaluation Procedures: Final Report  
PUBLICATION NO. FHWA-TS-87-214 DT. PRINTED: 87/04  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Pavement Newsletter, Issue 10, 7/87  
PUBLICATION NO. DT. PRINTED: 87/06/23  
ROUTING SYMBOL: HHO-11  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Newsletter, Issue 8, 11/86  
PUBLICATION NO. DT. PRINTED: 86/11/05  
ROUTING SYMBOL: HHO-13  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Newsletter, Issue 9, 4/87  
PUBLICATION NO. DT. PRINTED: 87/03/18  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Recycling Guidelines for Local Government, Executive Summary,  
1987  
PUBLICATION NO. DT. PRINTED: 87/08/13  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Highway Operations

Pavement Recycling Guidelines for Local Governments, Course Outline,  
9/87

PUBLICATION NO. DT. PRINTED: 87/08/17  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Recycling Guidelines for Local Governments, Instructor's  
Supplement

PUBLICATION NO. DT. PRINTED: 87/09  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Pavement Recycling Guidelines for Local Governments, Reference Manual,  
9/87

PUBLICATION NO. DT. PRINTED: 87/08/17  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Rehabilitation Manual, 9/85, and Supplement, 4/86

PUBLICATION NO. DT. PRINTED: 87/06/26  
ROUTING SYMBOL: HHO-13  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Pavement Testing Conference: Technical Summary

PUBLICATION NO. FHWA-RD-86-078 DT. PRINTED: 87/02  
ROUTING SYMBOL: HNR-20  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS# PB 86 216124

Performance Evaluation of Jointed Concrete Pavement Rehabilitation  
Without Resurfacing: Final Report

PUBLICATION NO. FHWA-IL-PR-102 DT. PRINTED: 86/08  
ROUTING SYMBOL:  
CONTACT: Illinois Department of Transportation  
PREPARED BY: Illinois Department of Transportation  
AVAILABLE FROM: NTIS



Performance of Flexible Ditch Linings: Final Report

PUBLICATION NO. FHWA-RD-86-114 DT. PRINTED: 86/11/25  
ROUTING SYMBOL: HNR-10  
CONTACT: Office of Engineering & Highway Operations R&D  
PREPARED BY: Office of Engineering & Highway Operations R&D  
AVAILABLE FROM: Office of Engineering & Highway Operations R&D

Performance of Pile Driving Systems: Inspection Manual

PUBLICATION NO. FHWA-RD-86-160 DT. PRINTED: 87/02  
ROUTING SYMBOL: HNR-30  
CONTACT: Office of Engineering & Hwy. Operations Research & Develop.  
PREPARED BY: Office of Engineering & Hwy. Operations Research & Deve  
AVAILABLE FROM: NTIS

Personal Travel in the U.S., Vol. 2, 11/86

PUBLICATION NO. DT. PRINTED: 86/12/15  
ROUTING SYMBOL: HPM-30  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Pile Group Prediction Symposium: Summary

PUBLICATION NO. FHWA-TS-87-222 DT. PRINTED: 87/12  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Prefabricated Vertical Drains: Vol. I: Engineering Guidelines: Final Report

PUBLICATION NO. FHWA-RD-86-168 DT. PRINTED: 86/11/06  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Preliminary Design of a Testing Facility to Subject Full Scale Pavement Sections to State and Cyclic Loading

PUBLICATION NO. FHWA/TX-87/18+457-1 DT. PRINTED: 86/08  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Prestressed Concrete Pavement Design-Design and Construction of  
Overlay Applications

PUBLICATION NO. FHWA-TX-87-78+401-8F DT. PRINTED: 86/11

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Price Trends for Federal Aid Highway Construction, Third Quarter 1986  
(Reprint)

PUBLICATION NO. DT. PRINTED: 87/01/12

ROUTING SYMBOL: HNG-13

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

Price Trends for Federal-Aid Highway Construction, First Quarter 1987

PUBLICATION NO. DT. PRINTED: 87/03

ROUTING SYMBOL: HNG-1

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

Price Trends for Federal-Aid Highway Construction, Fourth Quarter 1986

PUBLICATION NO. DT. PRINTED: 87/03/02

ROUTING SYMBOL: HNG-13

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

Price Trends for Federal-Aid Highway Construction, Second Quarter 1987

PUBLICATION NO. DT. PRINTED: 87/08/06

ROUTING SYMBOL: HNG-13

CONTACT: Office of Engineering

PREPARED BY: Office of Engineering

AVAILABLE FROM: Office of Engineering

Principles of Construction of Quality Hot-Mix Asphalt Pavements,  
Inspector's Training Course Manual

PUBLICATION NO. FHWA-80-R-00426 DT. PRINTED: 87/11

ROUTING SYMBOL: HHI-22

CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

Private Sector Involvement in Urban Transportation

PUBLICATION NO. DT. PRINTED: 87/01  
ROUTING SYMBOL: HPN-12  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

Procedures for the Analysis of Pavement Condition Data, Vol. I:  
Project Summary Report

PUBLICATION NO. FHWA/RD-86/06 DT. PRINTED: 86/07  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Procedures for the Analysis of Pavement Condition Data, Vol. II:  
MAPCON User's Manual

PUBLICATION NO. FHWA/RD-86-069 DT. PRINTED: 86/03  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Traffic Operations  
PREPARED BY: Office of Engineering and Traffic Operations  
AVAILABLE FROM: NTIS

Procedures for the Analysis of Pavement Condition Data, Vol. III:  
MAPCON Operations & Maintenance Manual

PUBLICATION NO. FHWA/RD-86/070 DT. PRINTED: 86/03  
ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Proceeding of Workshop on Cut-and-Cover Tunneling: Precast and  
Cast-In-Place Diaphragm Walls Constructed Using Slurry Trench Techniques

PUBLICATION NO. FHWA-RD-74-57 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Proceedings: Fourth Annual Pedestrian Conference

PUBLICATION NO. FHWA-TS-84-218 DT. PRINTED: 84/10  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Production of Concrete Containing Fly Ash for Structural Applications

PUBLICATION NO. FHWA/TX-87/1+364-1 DT. PRINTED: 86/05  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Project Documentation in Defense of Contract Claims (5/87)

PUBLICATION NO. DT. PRINTED: 87/04/27  
ROUTING SYMBOL: HHO-32  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Promotional Issues Related to Off-Site Accident Investigation

PUBLICATION NO. FHWA-RD-87-036 DT. PRINTED: 87/02  
ROUTING SYMBOL: HSR-30  
CONTACT: Traffic Safety Research Division  
PREPARED BY: Traffic Safety Research Division  
AVAILABLE FROM: NTIS

Protecting The Highway Trust Fund

PUBLICATION NO. DT. PRINTED: 86/10/27  
ROUTING SYMBOL: HOA-1  
CONTACT: Office of the Federal Highway Administrator  
PREPARED BY: Office of the Federal Highway Administrator  
AVAILABLE FROM: Office of the Federal Highway Administrator

Protective Systems for New Prestressed and Substructure Concrete

PUBLICATION NO. FHWA-RD-86-193 DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Public Roads Magazine, A Journal of Highway Research & Development,  
Vol. 51, No. 2, 9/87

PUBLICATION NO. DT. PRINTED: 87/06/12  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Public Roads, A Journal of Highway Research & Development, Vol. 51,  
No. 1, 6/87

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CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: GPO

Railroad-Highway Grade Crossing Signal Visibility Improvement Program,  
Vol. I: Final Report

PUBLICATION NO. FHWA-RD-86-186 DT. PRINTED: 87/07  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Railroad-Highway Grade Crossing Signal Visibility Improvement Program,  
Vol. II: Data and Hardware Details

PUBLICATION NO. FHWA-RD-86-187 DT. PRINTED: 86/10  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Railroad-Highway Grade Crossing Signal Visibility Improvement Program,  
Vol. III: Hardware User's Guide

PUBLICATION NO. FHWA-RD-86-188 DT. PRINTED: 87/07  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Rapid Field Test for Determination of Acceptable Lift Thickness of  
Shale During Embankment Construction

PUBLICATION NO. FHWA-WV-87-002 DT. PRINTED: 87/07

ROUTING SYMBOL:

CONTACT: West Virginia Department of Highways

PREPARED BY: West Virginia Department of Highways

AVAILABLE FROM: NTIS

Rapid Repair of Wet Asphaltic Concrete Using Fly Ash

PUBLICATION NO. FHWA/TX-86/50+359-2 DT. PRINTED: 85/10

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Re-Evaluation of Traffic Control at Non-Signalized Intersections

PUBLICATION NO. FHWA-MD-85-04 DT. PRINTED: 84/06

ROUTING SYMBOL: HRD-10

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Recommended Procedures for Safety Lane Type Pre-Trip Inspection of  
Commercial Motor Vehicles

PUBLICATION NO. DT. PRINTED: 87/03/09

ROUTING SYMBOL: HCS-10

CONTACT: Office of Motor Carrier Standards

PREPARED BY: Office of Motor Carrier Standards

AVAILABLE FROM: Office of Motor Carrier Standards

Reflective Characteristics of Roadway Pavements During Wet Weather:  
Technical Summary

PUBLICATION NO. FHWA-RD-86-104 DT. PRINTED: 87/08

ROUTING SYMBOL: HSR-30

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Rehabilitation of Existing Bridges Workshop, Participant Notebook (R)

PUBLICATION NO. DT. PRINTED: 86/11/06

ROUTING SYMBOL: HHI-22

CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

Repairing Cracks in Portland Cement, Cement Using Polymers  
PUBLICATION NO. FHWA-TX-87-48+385-2F DT. PRINTED: 86/11  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Requirements Analysis for a Heavy Vehicle Licensing System  
PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Resilient Modulus Testing Device for Dynamic Properties of Asphalt Mixes  
PUBLICATION NO. FHWA-NY-SR-87-88 DT. PRINTED: 87/05  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Response of Highway Barriers to Repeated Impact Loading: Steel Post Barriers  
PUBLICATION NO. FHWA/TX-86/68+382-1 DT. PRINTED: 85/11  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
PREPARED BY: Texas State Department of Highways  
AVAILABLE FROM: NTIS

Retrofit Railings for Narrow Through Truss and Other Obsolete Bridge Structures  
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ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Review of State Comprehensive Computerized Highway Information System  
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ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Road Profile Study

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ROUTING SYMBOL:  
CONTACT: Louisiana Transportation Research Center  
PREPARED BY: Louisiana Transportation Research Center  
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Road User and Property Taxes on Selected Motor Vehicles, 1987

PUBLICATION NO. DT. PRINTED: 87/07/20  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

Roadside Improvements for Local Roads and Streets

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ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
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Rock Blasting

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ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

Role of Vision and Audition in Truck and Bus Driving, The

PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Rollover Potential of Vehicles on Embankments, Sideslopes and Other Roadside Features

PUBLICATION NO. FHWA/RD-86/164 DT. PRINTED: 86/08  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS



Rural Technical Assistance Program Status Report, A Review of 58 Projects from FY1982 through FY1987

PUBLICATION NO. DT. PRINTED: 87/03  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: Local T2 Centers

Safer Timber Utility Poles, Vol. I: Summary Report

PUBLICATION NO. FHWA-RD-86-154 DT. PRINTED: 87/06  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Safety Effects of Cross-Section Design for Two-Lane Roads

PUBLICATION NO. FHWA-RD-87-008 DT. PRINTED: 87/11  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Research, Development, and Technology  
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AVAILABLE FROM: NTIS

Safety Features for Local Roads, Student & Instructor Guide (R)

PUBLICATION NO. DT. PRINTED: 86/11/20  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Second Generation Pavement Overlays

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ROUTING SYMBOL: HNR-20  
CONTACT: Office of Engineering and Highway Operations  
PREPARED BY: Office of Engineering and Highway Operations  
AVAILABLE FROM: NTIS

Seismic Design of Highway Bridge Foundations, Vol. II: Design Procedures and Guidelines

PUBLICATION NO. FHWA-RD-86-102 DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

Seismic Design of Highway Bridge Foundations, Vol. III: Example Problems and Sensitivity Studies

PUBLICATION NO. FHWA-RD-86-103 DT. PRINTED: 86/10/23  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
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Selected Highway Statistics & Charts 1985

PUBLICATION NO. DT. PRINTED: 86/11/06  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
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Selected Highway Statistics and Charts 1986

PUBLICATION NO. FHWA-PL-88-003 DT. PRINTED: 87/11  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Mgmt.

Selecting, Locating and Designing Traffic Barriers, A Supplement to a Guide For

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: Byrd, Tallamy, MacDonald and Lewis Consulting Engineers  
AVAILABLE FROM: National Highway Institute

Selection of Cost-Effective Countermeasures for Utility Pole Accidents, User's Manual

PUBLICATION NO. FHWA-IP-86-19 DT. PRINTED: 87/04/17  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Operations Staff

Self-Restoring Median Barriers and Bridge Railings, Final Report

PUBLICATION NO. FHWA-RD-87-002 DT. PRINTED: 87/01/21  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Operations Staff  
PREPARED BY: Office of Operations Staff  
AVAILABLE FROM: Office of Operations Staff

## Serviceability Ratings of Texas Highway System for Pavement Management

PUBLICATION NO. FHWA-TX-87-83+400-1F DT. PRINTED: 86/08  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways and Public Transportation  
PREPARED BY: Texas State Department of Highways and Public Transportation  
AVAILABLE FROM: NTIS

## Side Friction for Superelevation on Horizontal Curves: Technical Summary

PUBLICATION NO. FHWA-RD-86-024 DT. PRINTED: 87/06  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

## Signals, Traffic Software and Lighting - Courses & Base References (4/87)

PUBLICATION NO. DT. PRINTED: 87/04/27  
ROUTING SYMBOL: HTO-22  
CONTACT: Office of Traffic Operations  
PREPARED BY: Office of Traffic Operations  
AVAILABLE FROM: Office of Traffic Operations

## Significance of Pavement Design and Materials in D-Cracking

PUBLICATION NO. FHWA-OH-86-008 DT. PRINTED: 86/12  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

## Simplified Project Forecasting Users Guide (3-85)

PUBLICATION NO. DT. PRINTED: 86/10/22  
ROUTING SYMBOL: HPN-23  
CONTACT:  
PREPARED BY:  
AVAILABLE FROM: Office of Planning

## Slab Design Standards for Effects of Skew, Modification of

PUBLICATION NO. FHWA-CA-SD-84-03 DT. PRINTED: 84/10  
ROUTING SYMBOL:  
CONTACT: California Department of Transportation  
PREPARED BY: California Department of Transportation  
AVAILABLE FROM: NTIS

Slope Maintenance and Slide Restoration, Guidelines for (Reprint)

PUBLICATION NO. FHWA-TS-85-231 DT. PRINTED: 86/11/21

ROUTING SYMBOL: HRT-10

CONTACT: Office of Implementation

PREPARED BY: Office of Implementation

AVAILABLE FROM: Office of Implementation

Sprayable Electrically Conductive Polymer Concrete Coatings: Final Report

PUBLICATION NO. FHWA-RD-85-102 DT. PRINTED: 87/09

ROUTING SYMBOL: HRD-10

CONTACT: Offices of Research, Development, and Technology

PREPARED BY: Offices of Research, Development, and Technology

AVAILABLE FROM: NTIS

Spread Footings for Highway Bridges

PUBLICATION NO. FHWA-RD-86-185 DT. PRINTED: 87/11

ROUTING SYMBOL: HNR-30

CONTACT: Office of Research, Development, and Technology

PREPARED BY: Office of Research, Development, and Technology

AVAILABLE FROM: NTIS

Spring Highway Use Restrictions, Guidelines for

PUBLICATION NO. FHWA-TS-87-209 DT. PRINTED: 87/03

ROUTING SYMBOL: HRD-10

CONTACT: Offices of Research, Development, and Technology

PREPARED BY: Offices of Research, Development, and Technology

AVAILABLE FROM: NTIS

Stability Computation Procedures for Earth Slopes Containing Internal Reinforcement

PUBLICATION NO. FHWA-TX-87-45+435-1 DT. PRINTED: 86/11

ROUTING SYMBOL:

CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

AVAILABLE FROM: NTIS

Stabilized Subbase Friction Study for Concrete Pavements

PUBLICATION NO. FHWA-TX-87+459-1 DT. PRINTED: 87/12

ROUTING SYMBOL: HNR-20

CONTACT: Office of Engineering and Highway Operations

PREPARED BY: Office of Engineering and Highway Operations

AVAILABLE FROM: NTIS

State & Local Highway Training & Technology Resources, Issue 1, 12/86

PUBLICATION NO. DT. PRINTED: 87/02/25  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

State & Local Highway Training & Technology Resources, Issue 2, 7/87

PUBLICATION NO. DT. PRINTED: 87/06/29  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
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State Motor Fuel Taxes & Related Receipts, 1985

PUBLICATION NO. DT. PRINTED: 86/11/19  
ROUTING SYMBOL: HPM-10  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Highway Information Management

State and Local Highway Training and Technology Resources, Issue No. 1

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: Local T2 Centers

State and Local Highway Training and Technology Resources, Issue No. 2

PUBLICATION NO. DT. PRINTED: 87/06  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Statewide Survey of Friction Characteristics of Florida's Surface Courses (1986)

PUBLICATION NO. FHWA-FL-DOTBMR-87308 DT. PRINTED: 87/01  
ROUTING SYMBOL:  
CONTACT: Florida Department of Transportation  
PREPARED BY: Florida Department of Transportation  
AVAILABLE FROM: NTIS

Status Report of Federal Funds Used for Highway Safety Programs,  
FY-84,85,86

PUBLICATION NO. DT. PRINTED: 86/11/24  
ROUTING SYMBOL: HHS-22  
CONTACT: Office of Highway Safety  
PREPARED BY: Office of Highway Safety  
AVAILABLE FROM: Office of Highway Safety

Status Report, Rural Technical Assistance Program, FY-82 thru FY-87,  
1/87

PUBLICATION NO. DT. PRINTED: 87/03/16  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Studies of the Road Marking Code

PUBLICATION NO. FHWA-RD-76-97 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Sulfur-Extended Asphalt Pavement: A Three-Year Progress Report

PUBLICATION NO. FHWA-NY-RR-86-136 DT. PRINTED: 86/10  
ROUTING SYMBOL: HRD-10  
CONTACT: Offices of Research, Development, and Technology  
PREPARED BY: Offices of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Surface Design & Rehabilitation for Low-Volume Roads, Final Report

PUBLICATION NO. FHWA-TS-87-225 DT. PRINTED: 87/08/17  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
AVAILABLE FROM: Office of Highway Operations

Surface Design and Rehabilitation Guidelines for Low-Volume Roads:  
Executive Summary

PUBLICATION NO. FHWA-TS-87-225 DT. PRINTED: 87/06  
ROUTING SYMBOL: HHO-12  
CONTACT: Office of Highway Operations  
PREPARED BY: Office of Highway Operations  
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Surveying and Mapping Manual

PUBLICATION NO. DT. PRINTED: 87/10  
ROUTING SYMBOL: HNG-14  
CONTACT: Office of Engineering  
PREPARED BY: Office of Engineering  
AVAILABLE FROM: Office of Engineering

Swath Deposit and Spray Drift Evaluation for Roadside Sprayers

PUBLICATION NO. MSHD-RD-86-086 DT. PRINTED: 86/10  
ROUTING SYMBOL:  
CONTACT: Mississippi State Highway Department  
PREPARED BY: Mississippi State Highway Department  
AVAILABLE FROM: NTIS

Synthesis of Safety Research Related to Traffic Control and Roadway Elements, Vol. 1

PUBLICATION NO. FHWA-TS-82-232 DT. PRINTED: 87/05/08  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: NTIS  
AVAILABLE FROM: National Highway Institute

Synthesis of Safety Research Related to Traffic Control and Roadway Elements, Vol. 2

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ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: NTIS  
AVAILABLE FROM: National Highway Institute

Synthesis of Speed Zoning Practice: Technical Summary

PUBLICATION NO. FHWA-RD-85-096 DT. PRINTED: 87/08  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Synthesis of the Prequalification Procedures of Six State DOT's, Final Report

PUBLICATION NO. FHWA-TS-85-218 DT. PRINTED: 87/01/15  
ROUTING SYMBOL: HRT-10  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: Office of Implementation

Techniques for Reducing Construction & Maintenance Costs, Handouts for Training Course

PUBLICATION NO. DT. PRINTED: 87/07/30  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Techniques for Reducing Construction & Maintenance Costs, Instructor Guide, 4/87

PUBLICATION NO. DT. PRINTED: 87/07/30  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Techniques for Reducing Construction & Maintenance Costs, Participant Notebook, 4/87

PUBLICATION NO. DT. PRINTED: 87/07/30  
ROUTING SYMBOL: HHI-23  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Test and Evaluation of Energy Absorbing Barriers, Vol. I: Corrugated Steel Pipe Crash Cushion

PUBLICATION NO. FHWA-RD-74-14 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-20  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Toll Facilities in the United States: Bridges - Roads - Tunnels - Ferries

PUBLICATION NO. DT. PRINTED: 87/02  
ROUTING SYMBOL: HPM-20  
CONTACT: Office of Highway Information Management  
PREPARED BY: Office of Highway Information Management  
AVAILABLE FROM: Office of Hwy. Information Mgmt.

Traffic Accident Rates in Kentucky

PUBLICATION NO. UKTRP-86-1 DT. PRINTED: 86/01  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS



Traffic Detector Handbook: Field Manual (Reprint)

PUBLICATION NO. FHWA-IP-85-2 DT. PRINTED: 86/11/18

ROUTING SYMBOL: HHI-22

CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

Traffic Management During Major Highway Reconstruction, Abbreviated Case Studies

PUBLICATION NO. FHWA-SA-88-031 DT. PRINTED: 87/11

ROUTING SYMBOL: HTO-34

CONTACT: Office of Traffic Operations

PREPARED BY: Office of Traffic Operations

AVAILABLE FROM: Office of Traffic Operations

Traffic Operations Core Curriculum Course, Participant Workbook

PUBLICATION NO. DT. PRINTED: 87/02/18

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CONTACT: Office of Traffic Operations

PREPARED BY: Office of Traffic Operations

AVAILABLE FROM: Office of Traffic Operations

Traffic Signal Control System - Hardware Specification, Type 170

PUBLICATION NO. FHWA-IP-78-16 DT. PRINTED: 87/05

ROUTING SYMBOL: HRT-20

CONTACT: Office of Implementation

PREPARED BY: Office of Implementation

AVAILABLE FROM: NTIS

Traffic Volume Trends (Issued Monthly)

PUBLICATION NO. DT. PRINTED: 86/10/17

ROUTING SYMBOL: HPM-30

CONTACT: Office of Highway Information Management

PREPARED BY: Office of Highway Information Management

AVAILABLE FROM: Office of Highway Information Management

Transportation System Management Brief No. 3, Reconstruction

PUBLICATION NO. DT. PRINTED: 87/09/30

ROUTING SYMBOL: HTO-34

CONTACT: Office of Traffic Operations

PREPARED BY: Office of Traffic Operations

AVAILABLE FROM: Office of Traffic Operations

Transportation System Management Brief No. 7, Transportation Management

PUBLICATION NO. DT. PRINTED: 87/05/15  
ROUTING SYMBOL: HPN-23  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

Transportation System Management Brief, Ridesharing 9/86

PUBLICATION NO. DT. PRINTED: 86/10/21  
ROUTING SYMBOL: HTO-34  
CONTACT: Office of Traffic Operations  
PREPARED BY: Office of Traffic Operations  
AVAILABLE FROM: Office of Traffic Operations

Transverse Distribution of Loads in Box Girder Bridges, Vol. 1: Augmentation of Lanell Program

PUBLICATION NO. FHWA-CA-SD-86-01 DT. PRINTED: 86/09  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
PREPARED BY: Office of Research, Development, and Technology  
AVAILABLE FROM: NTIS

Tri-Regional Safety and Traffic Operations Conference

PUBLICATION NO. FHWA-SA-88-030 DT. PRINTED: 87/11  
ROUTING SYMBOL: HTO-34  
CONTACT: Office of Traffic Operations  
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Trial Guidelines for the Conservation of Virginia's Historic Bridges

PUBLICATION NO. FHWA-VA-87-5 DT. PRINTED: 86/09  
ROUTING SYMBOL: HRD-10  
CONTACT: Office of Research, Development, and Technology  
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AVAILABLE FROM: NTIS

Truck and Bus Driver Task Analysis

PUBLICATION NO. DT. PRINTED: 87/04/15  
ROUTING SYMBOL: HCS-20  
CONTACT: Office of Motor Carrier Standards  
PREPARED BY: Office of Motor Carrier Standards  
AVAILABLE FROM: Office of Motor Carrier Standards

Type 170 Traffic Signal Control System, Hardware Specification  
PUBLICATION NO. FHWA-IP-78-16 DT. PRINTED: 87/05/05  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: NTIS  
AVAILABLE FROM: Office of Implementation

U.S. Highways, Vol. 2, Issue 2, Fall 1986  
PUBLICATION NO. DT. PRINTED: 86/10/31  
ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
PREPARED BY: Office of Public Affairs  
AVAILABLE FROM: Office of Public Affairs

U.S. Highways, Vol. 2, Issue 3, Summer 1987  
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ROUTING SYMBOL: HPA-1  
CONTACT: Office of Public Affairs  
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UTPS Training Session, Visual Aids Workshop  
PUBLICATION NO. DT. PRINTED: 87/07  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

UTPS Utown Case Study  
PUBLICATION NO. DT. PRINTED: 87/07  
ROUTING SYMBOL: HPN-22  
CONTACT: Office of Planning  
PREPARED BY: Office of Planning  
AVAILABLE FROM: Office of Planning

UTRAP Status Report for Select Projects Containing Experimental Features

PUBLICATION NO. UTRAP-87-11 DT. PRINTED: 87/12  
ROUTING SYMBOL: HSR-30  
CONTACT: Office of Safety and Traffic Operations  
PREPARED BY: Office of Safety and Traffic Operations  
AVAILABLE FROM: NTIS

Upgrade of 690D Surface Dynamics Profilometer for Non-Contact  
Measurements

PUBLICATION NO. FHWA-TX-87-74+494-1F DT. PRINTED: 87/07  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways and Public Transportation  
PREPARED BY: Texas State Department of Highways and Public Transportation  
AVAILABLE FROM: NTIS

Urban Drainage Design (UDD-1), Course #13027

PUBLICATION NO. DT. PRINTED: 87/01/21  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Urban Transportation Plan Process for Project Development and Design,  
Using the

PUBLICATION NO. DT. PRINTED: 87/04/09  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Urban Transportation Planning Process for Project Development and  
Design, Using the

PUBLICATION NO. Course # 15251 DT. PRINTED: 87/04  
ROUTING SYMBOL: HHI-22  
CONTACT: National Highway Institute  
PREPARED BY: National Highway Institute  
AVAILABLE FROM: National Highway Institute

Utility Pole Accident Countermeasures Evaluation Program and Input  
Processor, User's Manual

PUBLICATION NO. FHWA-IP-86-14 DT. PRINTED: 86/12  
ROUTING SYMBOL: HRT-20  
CONTACT: Office of Implementation  
PREPARED BY: Office of Implementation  
AVAILABLE FROM: NTIS

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PUBLICATION NO. FHWA/TX-86/75+410-7F DT. PRINTED: 86/09  
ROUTING SYMBOL:  
CONTACT: Texas State Department of Highways  
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PUBLICATION NO. FHWA-TS-87-226 DT. PRINTED: 87/07/29

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CONTACT: Office of Operations Staff

PREPARED BY: NTIS

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PUBLICATION NO. DT. PRINTED: 87/02/26

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CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

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ROUTING SYMBOL: HHI-22

CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

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Worth in Transportation Development

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PREPARED BY: Kempter-Rossman International

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CONTACT: National Highway Institute

PREPARED BY: National Highway Institute

AVAILABLE FROM: National Highway Institute

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CONTACT: Texas State Department of Highways

PREPARED BY: Texas State Department of Highways

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Wide Area Detection System (WADS) Applications, Vol. I: Executive Summary

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CONTACT: Office of Safety and Traffic Operations  
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CONTACT: Office of Safety and Traffic Operations  
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